

### **REMARKS**

By this amendment, Applicants have canceled claims 1-50 and 53-61, without prejudice and reserve the right to pursue them in one or more continuation and/or divisional applications. In order to expedite allowance, claims 51 and 52 have been amended to remove or clarify alleged indefinite terms. Claim 51 has been amended to include that the primer extension is conducted using "two or more chain terminators." Support for "two or more" chain terminators can be found, for example, at page 30, line 17, page 31, lines 14-20, and page 52, lines 4-8. Claim 67 has been amended to make it consistent with claim 51. Applicants have also added new claim 69 directed to when the target nucleic acid comprises the scrapie locus. Support can be found, for example, in originally filed claim 49 and pages 31-32. No new matter has been added by this amendment. Applicants respectfully request entry of the amendment and allowance of the case.

### **Rejection under 35 U.S.C. §112, Second Paragraph**

The Examiner rejected claims 51 and 52 as allegedly indefinite for certain alleged indefinite phrases in the body of the claims.

Applicants respectfully disagree with the Examiner and submit that the claims are definite to a person of ordinary skill in the art upon reading the specification. However, in order to expedite prosecution of the application, Applicants have amended the claims to remove or clarify the alleged indefinite phrases.

In various embodiments, the 5' tag of the amplification primer is design to contain, among other things, a copy of the sequence of nucleotides surrounding and including the polymorphic site of the target. After amplification of the target nucleic acid using primers comprising these special 5' tags, the resulting amplicons contain a mirror image of the polymorphic site (Mirror SNP) and the actual polymorphic site (Real SNP). See, for example, pages 50-52 and Figures 3 and 4. On interrogating the Mirror SNP and the Real SNP of the target with identification primers that are placed adjacent to the SNP

sites, an accurate and reliable identification of the polymorphism can be made by comparing the extension products from the Real SNP and the Mirror SNP. This is particularly so in heterozygous and/or complex genotypes.

Applicants submit that the claims are definite to one of ordinary skill in the art and request reconsideration and withdrawal of the rejections based on 35 U.S.C. § 112, second paragraph.

### **Double Patenting Rejection**

The Examiner provisionally rejected claims 51-52, 62-64 and 66-68 under 35 U.S.C. §101 for the “same invention” double patenting in view of claims 1, 10, 16-18, 51, 52, and 53 of co-pending U.S. Application No. 10/328,150 (‘150 application).

Applicants respectfully disagree with the Examiner and traverse this rejection. In order to maintain a “same invention” double patenting rejection, the claim scope of the two applications must be the same. The claims of this application require two or more chain terminators to be used in the primer extension reaction. Thus, the claim scope of this application and the ‘150 application are not the same and Applicants respectfully submit that this rejection is improper and should be withdrawn.

Applicants assume the Examiner meant to raise an obviousness-type-double patenting rejection. In order to expedite allowance, Applicants enclose a Provisional Terminal Disclaimer over U.S. Application No. 10/328,150. Accordingly, Applicants respectfully submit that this application is in condition for allowance.

### **Conclusion**

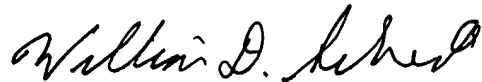
Reconsideration and allowance are respectfully solicited.

Applicants petition the Commissioner for one-month extension of time and enclosed the required fee. No additional fee is believed to be due with respect to the filing of this amendment. If any additional fees are due, or an overpayment has been made, please charge, or credit, our Deposit Account No. 11-0171 for such sum.

Applicant: Brian McKeown  
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If the Examiner has any questions regarding the present application, the Examiner is cordially invited to contact Applicant's attorney at the telephone number provided below.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "William D. Schmidt".

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